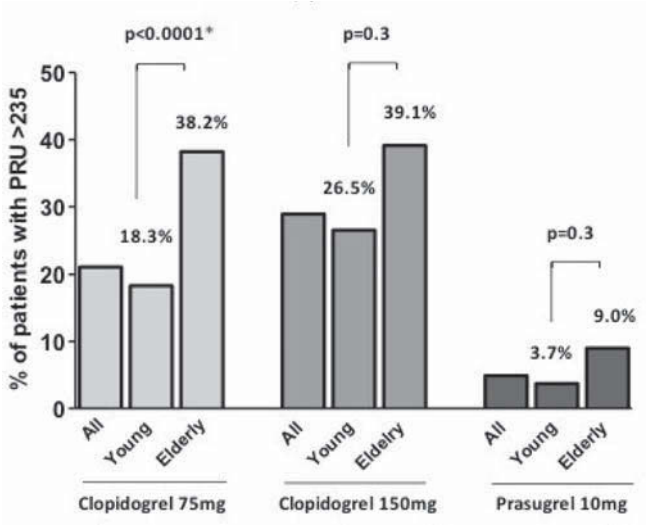
Platelet response to clopidogrel and prasugrel was assessed by the VerifyNow assay and light transmission aggregrometry. Response to treatment and rate of high platelet reactivity (HPR) and inhibition (HPI) were compared between the two age categories.

Results: On-treatment platelet reactivity with clopidogrel 75mg, 150mg or prasugrel 10mg was always higher in elderly patients (n=197) than in younger patients (n=1074) whatever the test used. The difference in PRU in response to ADP-PGE_1 agonist between the two populations was +45; p<0.0001 in patients treated with clopidogrel 75mg, +30; p=0.17 in patients treated with clopidogrel 150mg and +20; p=0.08 with prasugrel 10mg. Elderly patients displayed a higher rate of HPR on clopidogrel 75mg than younger patients (38.2% vs. 18.2%; p<0.0001) (figure) and a lower rate of HPI (2.3% vs. 8.7%; p=0.01). Of note, diabetes and the distribution of the genotype for the loss of function allele 2C19*2 were similar in both population and could not explain the higher rate of HPR of the elderly.

Conclusions: Elderly patients present an impaired response to clopidogrel with a high rate of HPR. Clopidogrel 150mg and prasugrel 10mg blunt, but do not eliminate the difference in response observed between old and young patients.



Patients with HPR under thienopyridine treatment

017

One year outcome in HIV-infected patients with myocardial infarction. Analysis from a French nationwide hospital medical information database

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Background: Risk of myocardial infarction (MI) in HIV infected patients is increased and short term prognosis is good. One year outcome remain to be determined in large scale study.

Methods: From the French nationwide hospital medical information database, all the consecutive patients hospitalized in the 1546 French hospital/clinics for myocardial infarction from 1st January 2005 to 31st December 2009 were included. We compared one year outcome between patients infected or not by HIV.

Results: Among the 628454 patients included, 1286 (0.2%) was infected by HIV. At one year of follow-up, we observed an increased rate of recurrent MI in HIV-infected patients than non-infected patients (14,9% vs 12.9%; p=0.02) and respectively 14.9% vs 11.3% (p<0.01) in a sub-group of patients matched for age, sex and type of MI (ratio 1:2).

Conclusion: From our large scale nationwide study, HIV patients have an increased risk of recurrent MI during follow-up, thus emphasizing the benefit of secondary prevention in such patients.

018

Cardiac iatrogenic admissions in a coronary care unit. A prospective study on 5517 admissions

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Introduction: Iatrogenic event was defined as adverse drug reactions or complications induced by non-drug interventions, such as cardiac devices or stimulation techniques. Iatrogenic complications (IC) are associated with prolonged hospitalization and higher in hospital mortality. In the real world IC is mainly evaluated during hospital stay. The present study focused on admission in a coronary care unit (CCU) for an adverse effect and we aimed: a) to evaluate the prevalence and the characteristics of these admissions and the types of iatrogeny; b) and to assess the in-hospital mortality.

Methods: From April 2008 to April 2011, all the consecutive admissions caused by iatrogenic events at the CCU were prospectively studied and classified in 2 groups: 1) pharmacological adverse effect (antiarrythmics, anticoagulant, and antiplatelets), 2) non pharmacological adverse effect (pace maker, Automatic Implantable Cardiovertor Defibrillator, radiofrequency, stent, cardiac surgery).

Results: On 5517 admissions, 168 (3 %) iatrogenic causes of admissions were included. Most patients were male (54%) with a mean age at 71±16 years. The iatrogenic in-hospital mortality (7.7 %) was similar to general population (8 %). The following table presents the results of the 2 groups.

Table – The results of the 2 groups

		N (%)	Men	Age±SD	Hospital death rate
	Total	168	90 (54%)	71±16	14 (8%)
1	Pharmacological adverse effect	84 (50%)	34 (40%)	75±14	4(5%)
2	Non pharmacological adverse effect	84 (50%)	56 (67%)	68±17	10(12%)
	p	NS	p<0.001	p=0.004	P=0.163

Conclusion: This preliminary work shows the high frequency of iatrogenic events induced admissions and the high rate of hospital death in particular for non drug interventions, which tend toward a worse prognosis. The follow up of this work will be necessary to better understand the causes of iatrogeny in order to limit this pathology.

019

Effect of increased maintenance dose of clopidogrel in cardiovascular outpatients and influence of the cytochrome P450 2C19 *2 allele on clopidogrel responsiveness

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